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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,504	02/27/2004	Tsai-Fa Hsu	17495	9105
23389 7590 03/18/2009 SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530				
EXAMINER				
TRAN, BINH X				
ART UNIT		PAPER NUMBER		
1792				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/789,504

**Applicant(s)**

HSU ET AL.

**Examiner**

Binh X. Tran

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 6, 8-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, 8, 12-14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB008)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4, 6, 8, 12-14, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichiroku et al. (US 2002/0022681 A1).

Respect to claims 1-2, 12-13, Ichiroku discloses a composition consisting essentially of:

epoxy resin selected from the group consisting of bisphenol A epoxy resin, bisphenol F epoxy resin, cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin) (See paragraph 0015). ;

a curing agent selected from acid anhydrides (paragraph 0019);

a promoter (i.e. mixture of curing accelerator and component C and D and/or mixture thereof in Ichiroku's reference)

wherein the molar ratio of the curing agent per mole of epoxy group is from 0.5 to 1.5, preferably from 0.8 to 1.3 (paragraph 0021). Base on this information, the ratio of

epoxy to the curing agent can be calculated to have a range from 0.667 to 2, preferably from 0.77 to 1.25 (i.e. reciprocal value of 1.5 to 0.5 and reciprocal value of 1.3 to 0.8; overlapping applicant's range).

Respect to claims 4, 12-13, Ichiroku discloses the selected from consisting of cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin) (See paragraph 0015).

Respect to claims 6, 14 Ichiroku discloses the acid anhydride is selected from the group consisting of hexahydrophthalic anhydride, methyl hexahydrophthalic anhydride (paragraph 0019)

Respect to claim 8, 16, Ichiroku discloses the promoter comprises the salts, quaternaries and imidazolates of 1,8-diazabicyclo[5,4,0] -undec-7-ene, and a mixture thereof (paragraph 0022-0023).

3. Claims 1-2, 4, 6, 8, 12-14, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al. (US 5,145,889).

Respect to claims 1-2, 12-13, Wada discloses a composition comprising:

100 part epoxy resin selected from the group consisting of bisphenol type epoxy resin, cycloaliphatic epoxy resin (abstract, col. 3 lines 60-65);

70-140 curing agent selected from acid anhydride (abstract);

promoter (i.e. mixture of curing accelerator and thiophosphate) (see abstract)

Base on this information, the ratio of epoxy to the curing agent can be calculated to have a range from 0.714 to 1.428 (i.e.  $100/140 = 0.714$  and  $100/70 = 1.428$ ; overlapping applicant's range). Further, in Figure 4, Wade discloses the ratio of curing agent/epoxy range from 0.7 to 1.3 including data point at 1 (read on applicant's range).

Respect to claims 4, 12-13, Wada discloses the epoxy resin selected from the group consisting of bisphenol type epoxy resin, cycloaliphatic epoxy resin (col. 3 lines 60-65). Respect to claims 6, 14 Wada discloses the acid anhydride is selected from the group consisting of succinic anhydride, hexahydrophthalic anhydride, methyl hexahydrophthalic anhydride (col. 4 lines 5-15).

Respect to claim 8, 16, Wada discloses the composition promoter is selected from the quaternary ammonium salts (i.e. tetraethyl ammonium chloride or tetraethyl ammonium bromide), 1,8-diazabicyclo[5,4,0] -undec-ene, and a mixture thereof (col. 4 lines 50-61, col. 14 line 1-5).

4. Claims 1-2, 4, 6, 8, 12-14, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumita (US 2002/0077421 A1), hereinafter refer as Sumita ('421).

Respect to claims 1-2, 12-13, Sumita ('421) discloses a composition comprising:

(a) epoxy resin selected from the group consisting of bisphenol A epoxy resin, bisphenol F epoxy resin, cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin) (See paragraph 0009;

(b) a curing agent selected from acid anhydrides (paragraph 0014-0015);

wherein the molar ratio of the curing agent per mole of epoxy group is from 0.5 to 1.5, preferably from 0.8 to 1.2 (paragraph 0017). Base on this information, the ratio of epoxy to the curing agent can be calculated to be from 0.667 to 2, preferably from 0.833 to 1.25 (i.e. reciprocal value of 1.5 to 0.5 and reciprocal value of 1.2 to 0.8; overlapping applicant's range).

Respect to claims 4, 12-13, Sumita ('421) discloses the epoxy resin is selected from the group consisting of cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin) (See paragraph 0009). Respect to claims 6, 14 Sumita ('421) discloses the acid anhydride is selected from the group consisting of hexahydrophthalic anhydride, methyl hexahydrophthalic anhydride (paragraph 015).

Respect to claim 8, 16, Sumita ('421) discloses the composition further comprises a promoter selected from the imidazoles and salt of 1,8-diazabicyclo[5,4,0]-undec-7-ene, and a mixture thereof (paragraph 0022-0023).

5. Claims 1-2, 4, 6, 8, 12-14, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumita (US 2002/0089071 A1), hereafter refer as Sumita ('071).

Respect to claims 1-2, 12-13 Sumita ('071) discloses a composition comprising:

(a) epoxy resin selected from the group consisting of bisphenol A epoxy resin, bisphenol F epoxy resin, cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin) (See paragraph 0014);

(b) a curing agent selected from acid anhydrides (paragraph 0019, abstract);  
wherein the molar ratio of the curing agent per mole of epoxy group is from 0.5 to 1.5, preferably from 0.8 to 1.2 (paragraph 0021). Base on this information, the ratio of epoxy to the curing agent can be calculated to be from 0.667 to 2, preferably from 0.833 to 1.25 (i.e. reciprocal value of 1.5 to 0.5 and reciprocal value of 1.2 to 0.8; overlapping applicant's range).

Respect to claims 4, 12-13, Sumita ('071) discloses the epoxy resin is selected from the group consisting of cycloaliphatic epoxy resin (i.e. cyclopentadine epoxy resin)

(See paragraph 0014). Respect to claims 6, 14 Sumita ('071) discloses the acid anhydride is selected from the group consisting of hexahydrophthalic anhydride, methyl hexahydrophthalic anhydride (paragraph 0019).

Respect to claim 8, 16, Sumita ('071) discloses the composition further comprises a promoter selected from imidazolates and salts of 1,8-diazabicyclo[5,4,0] - undec-7-ene, and a mixture thereof (paragraph 0026-0027).

### ***Response to Arguments***

6. The applicant's amendment along with the remark in page 8-9 is sufficient to overcome the examiner's previous ground of rejection under 35 USC 112, 2<sup>nd</sup> paragraph.

Respect to previous ground of rejection under 35 USC 102(b) rejection as anticipated by Ichiroku the applicants state " Ichiroku also teaches that the epoxy resin composition also includes a foam suppressing composition comprising an oil compound consisting of a hydrophobic organopolysiloxane of general formula  $I R_1 SiO_{(4-a)/2}$ . According to applicant's "The foam suppressing composition is thereby excluded from the composition of the present invention by the use of the term "consisting essentially of", as the addition of the hydrophobic organopolysiloxane silicon and hydrophilic polyoxyalkylene modified silicone oil of Ichioroku in the present composition affects the novel and basic characteristics of the composition of the present invention". The examiner disagrees. First, the examiner clearly recognizes that Ichiroku teaches to use the foam suppressing component. However, it is noted in claim 1, the applicants do not disclose the chemical formula or chemical name of the promoter component.

Therefore, the examiner will interpret the foam suppression component is part of the promoter mixture. Further, it is noted in claim 8, the applicants recites "said promoter is selected from quaternary ammonium salts, imidazoles, and salts of 1,8-diazabicyclo[5,4,0]-undec-7-ene, and a mixture thereof". Again, it is noted that applicants does not use the Markush language (i.e. "selected from the group consisting of") for the promoter. Thus, the examiner interprets claim 8 is inclusive or open-end and does not exclude additional, unrecited elements for the promoter. Thus, the examiner certainly can interpret the mixture of foam suppression and the salts, quaternaries and imidazolates of 1,8-diazabicyclo[5,4,0]-undec-7-ene in Ichiroku reference is a part of the promoter component. Thus, the examiner still maintains the previous ground of rejections.

Respect to previous ground of rejection under 35 USC 102(b) rejection as anticipated by Wada the applicants state "Wada disclose that this silane coupling agent and the phosphorous triphosphite are essential components of Wada and imparts properties that distinguishes it from other epoxy resin compositions. The presence of these additional ingredients in the present composition affects the basic and novel properties of the present composition and are thus the additional ingredients excluded from the present invention by the term "consisting essentially of". The examiner disagrees. As discussed above, it is noted in claim 1, the applicants do not disclose the chemical formula or chemical name of the promoter component. Therefore, the examiner will interpret silane coupling agent and the phosphorous triphosphite in Wada's reference is part of the promoter component of mixture thereof. Further, it is

noted that applicants does not use the Markush language (i.e. "selected from the group consisting of") for the promoter in claim 8. Thus, the examiner interprets claim 8 is inclusive or open-end and does not exclude additional, unrecited elements for the promoter. Thus, the examiner certainly can interpret silane coupling agent and the phosphorous triphosphite in Wada reference are a part of the promoter component. Thus, the examiner still maintains the previous ground of rejections.

Respect to previous ground of rejection under 35 USC 102(b) rejection as anticipated by Sumita ('421) or Sumita ('071) the applicants state "Neither the '421 publication nor the '071 publication teach or disclose a packaging composition of the present invention which provides high glass transition temperatures, low retractive index, high light transmission and scratch resistance that does not contain the acrylic component or the mixture described herein above". The examiner disagrees. Again, as discussed above, it is noted the applicants do not disclose the chemical formula or chemical name of the promoter component. Therefore, the examiner will interprets the acrylic component in Sumita's reference is part of the promoter component of mixture thereof. Thus, the examiner still maintains the previous ground of rejections.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "high glass transition temperature, low refractive index, high light transmission and scratch resistance) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh X. Tran whose telephone number is (571)272-1469. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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